

Amendments to the Drawings

The attached sheet of drawings includes changes to Figure 1 and to Figure 2. These sheets, which include Figure 1 and Figure 2, replace the original sheets including Figure 1 and Figure 2. In Figure 1, the words, "Prior Art" have been added to the legend. In Figure 2, the words, "Prior Art" have been added to the legend.

2 Attachments:

Replacement Drawing sheet for Figure 1

Replacement Drawing sheet for Figure 2

REMARKS/ARGUMENTS

Claims 1-21 are pending. The Examiner has objected to Claims 1 and 11. Claims 1-21 are rejected under 35 U.S.C. §103(a). The specification has been amended herein for clerical errors. Claims 1 and 11 have been amended herein, in part, for clerical errors. Figures 1 and 2 have been amended herein. No new matter has been added herein. The rejections and comments of the Examiner set forth in the Office Action dated March 21, 2007 have been carefully considered by the Applicant. Applicant respectfully requests the Examiner to consider and allow Claims 1-21 in view of the instant response and amendments. No new matter has been added herein.

CLAIM OBJECTIONS

Claims 1 and 11 are objected to because of informalities. It is unclear to the Examiner if the use of the word ‘block’ in both Claims 1 and 11 is intentional or the result of a typographical error. The Examiner requests appropriate correction. The term ‘block’ should be the term, ‘black’. Applicant has amended Claims 1 and 11 to reflect the term ‘black’ rather than the term ‘block’.

AMENDMENTS TO THE SPECIFICATION

The following amendments to the specification were made to correct typographical errors regarding using the word ‘block’ instead of ‘black’: the title cover page, the title on page 1, the first paragraph on page 1, the first paragraph on page 3, the first paragraph on page 4, the second paragraph on page 4, the third paragraph on page 5, the fourth paragraph on page 5, the first

paragraph on page 6, the title on page 8, the second paragraph on page 10, the second paragraph on page 13, the second paragraph on page 15, the third paragraph on page 15, the title on page 21, and the first paragraph on page 21.

AMENDMENTS TO THE DRAWINGS

Fig. 1

In the Office Action, the Examiner objected to Figure 1 due to not being labeled as prior art. Applicant has amended Figure 1 herein and included the replacement sheet herewith. Therefore, the objection with respect to Figure 1 is moot.

Fig. 2

In the Office Action, the Examiner objected to Figure 2 due to not being labeled as prior art. Applicant has amended Figure 2 herein and included the replacement sheet herewith. Therefore, the objection with respect to Figure 2 is moot.

AMENDMENTS TO THE CLAIMS

The amendments to Claim 1 and 11 are supported by at least the first paragraph of page 11 of the specification which recites:

Inputs 210, 230 and 250 (Figure 2) are applied to web tier module 310, in a similar fashion as to the application of inputs 210, 230 and 250 to application 200 (Figure 2). In contrast to conventional black box testing however, outputs 315 of web tier module 310 are observed rather than outputs of the entire application 200. Outputs of tier-specific modules, e.g., web tier module 310, are generally computer readable information, e.g., XML files and/or database files. Outputs 315 of web tier module 310 can then be used as inputs 317 to application tier module 320. Outputs 315 can be stored in a computer usable media, for example on a test server, e.g., for documentation of testing. It is appreciated that outputs 315 and inputs 317 are identically equal. Outputs 315 can also be stored for future use and inputs to a subsequent test, e.g., if application tier module 320 is not available for testing at the same time.

Page 11 of the specification describes observing the output from a tier-specific module, in the form of computer readable information such as an SML file and/or database files.

CLAIM REJECTIONS

Rejection under 35 U.S.C. §101

The present Office Action rejected Claims 1-2, 5-12, and 15-21 under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Applicants have reviewed the Examiner's reason for rejection under 35 U.S.C. §101 and respectfully submit that the rejection under 35 U.S.C. §101 of Claims 1-2, 5-12, and 15-21 are improper and should be withdrawn.

Independent Claims 1 and 11

Regarding Claims 1 and 11, on page 3 section 4 of the present Office Action, the Examiner has stated, "The claimed invention as a whole must accomplish a practical application. That is, it must produce a "useful, concrete and tangible result." (State Street Bank & Trust Co. v. Signature Financial Group Inc., 47 F.3d at 1373, 47 USPQ2d at 1601-02.) Specifically, the claims are directed to dividing an application into a plurality of modules and testing the modules. However the language of the claims is such that the results of the testing are never displayed on a device or stored on a tangible medium."

Furthermore, the Examiner states: "The current focus of the Patent Office in regard to statutory inventions under 35 U.S.C. §101 for method claims and invention recite a practical application. Practical application can be provided by a physical transformation or a useful,

concrete and tangible result. No physical transformation is recited and additionally, the final result of the claim is testing a plurality of modules, which is not a physical transformation.” Emphasis added.

Examiner suggests that Applicant can overcome this rejection by providing “a physical transformation or a useful concrete and tangible result”. Emphasis added.

Regarding the above Examiner statements, Applicant respectfully submits that a produced “tangible result” as defined in the MPEP appears to be a tangible result that is produced by the invention as claimed, not produced as in “outputting...in a tangible form”. That is, the “tangible form” language provided by the Examiner appears to be merely a superfluous method of presenting the tangible result presently produced by the invention (emphasis added).

Specifically, Applicants have reviewed related case law and the MPEP and do not understand the “produce a tangible result” language to be limited to an output such as a piece of paper, or display on a monitor.

For example, in State Street Bank, 47 USPQ2d 1596, at 1600-1601, it was held that the transformation of data, representing discrete dollar amounts, by a machine through a series of mathematical calculations into a final share price, constitutes a practical application of a mathematical algorithm, formula, or calculation, because it produces "a useful, concrete and tangible result"--a final share price momentarily fixed for recording and reporting purposes and even accepted and relied upon by regulatory authorities and in subsequent trades (emphasis added).

Furthermore, MPEP 2106(2)(b) clearly states that the tangible requirement does not necessarily mean that a claim must either be tied to a particular machine or apparatus or must operate to change articles or materials to a different state or thing. However, the tangible requirement does require that the claim must recite more than a 35 U.S.C. 101 judicial exception, in that the process claim must set forth a practical application of that judicial exception to produce a real-world result. *Benson*, 409 U.S. at 71-72, 175 USPQ at 676-77 (invention ineligible because had “no substantial practical application.”). “[A]n application of a law of nature or mathematical formula to a ... process may well be deserving of patent protection.” *Diehr*, 450 U.S. at 187, 209 USPQ at 8 (emphasis added); see also *Corning*, 56 U.S. (15 How.) at 268, 14 L.Ed. 683 (“It is for the discovery or invention of some practical method or means of producing a beneficial result or effect, that a patent is granted . . .”). In other words, the opposite meaning of “tangible” is “abstract.” (emphasis added)

In other words, Applicant respectfully submits that the present invention overcomes the tangible non-statutory subject matter requirements of 35 U.S.C. §101 when the invention produces a real-world result, not when the invention outputs or displays the produced tangible real-world result. That is, Applicant understands tangible result to refer to a result that is capable of being understood and evaluated, and therefore regarded as real.

For the above reasons, Applicants respectfully submit that both Claims 1 and 11 produce the useful, concrete and tangible result of “output from testing a tier-specific module” which can be stored in a computer usable media, such as a test server. (Specification, page 21) Outputs from one tier-specific module can then be used as inputs to another tier-specific module.

Outputs can be stored for future use as inputs to a subsequent test. (Specification, page 11) That is, the present claimed invention produces the tangible result of an output a tier-specific module. Moreover, the result, e.g., an output from a tier-specific module, is capable of being understood and evaluated, and therefore should be regarded as real.

Moreover, Applicants respectfully submit that the actual manner in which the produced results of the output from a tier-specific module is displayed, e.g., output to a screen, printed on a piece of paper, placed in a folder, or otherwise presented, are immaterial as to whether or not the results are tangible.

Therefore, Applicant respectfully submits the rejection of Claims 1 and 11 under 35 U.S.C. §101 is improper and should be withdrawn. Furthermore, since the rejection under 35 U.S.C. §101 of Claims 1 and 11 is improper and should be withdrawn, the rejection under 35 U.S.C. §101 of Claims 2, 5-10, 12, and 15-21 which depend on Claims 1 and 11 is also improper and should be withdrawn.

Rejection under 35 U.S.C. §102(b)

The present Office Action rejected Claims 1-4, 6-14, and 16-21 under 35 U.S.C. 102(b) as being anticipated by “End-to-End Testing of IT Architecture and Applications” by Bocarsly et al. (hereinafter referred to as ‘Bocarsly’) Applicants have reviewed the Examiner’s reason for rejection under 35 U.S.C. §102(b) and respectfully submit that the rejection under 35 U.S.C. §102(b) of Claims 1-4, 6-14, and 16-21 are improper and should be withdrawn.

Independent Claims 1 and 11

Applicant respectfully points out that amended independent Claims 1 recites a method of black box testing in a multi-tier application environment. In particular, independent Claims 1 recites:

dividing a multi-tier application into a plurality of tier-specific modules; testing each of said plurality of tier-specific modules as a black box; and observing an output of one of said plurality of tier-specific modules.

Claims 2-4, and 6-10 that depend from independent Claim 1 provide further recitations of the features of the present invention. Additionally, independent Claim 11 contains similar limitations to that of Claim 1. Claims 12-14 and 16-21 that depend from independent Claim 11 provide further recitations of the features of the present invention.

According to the Federal Circuit, “anticipation requires the disclosure in a single prior art reference of each claim under consideration”. W.L. Gore & Assocs. v. Garlock Inc., 721 F.2d 1540, 220 USPQ 303, 313 (Fed. Cir. 1983) However, it is not sufficient that the reference recite all the claimed elements. As stated by the Federal Circuit, the prior art reference must disclose each element of the claimed invention “arranged as in the claims” (emphasis added); Lindermann Maschinenfabrik GmbH v. American Hoist & Derrick Co., 730 F.2d 1452, 221 USPQ 481, 485 (Fed. Cir. 1984)

Bocarsly does not anticipate or render obvious “dividing a multi-tier application into a plurality of tier-specific modules” such as is set forth in Applicant’s Claim 1. Applicant understands Bocarsly to disclose a combination of white and black box testing techniques (Bocarsly, pg. 3, line 10-12, referring to merging white and black box testing techniques). In the context of this merger of white and black box testing techniques, Bocarsly only discloses

“functional testing” at “points of access” including “the front-end client, middle tier, content sources, and back-end databases”. (Bocarsly, pg. 3, 1st full paragraph) However, Bocarsly does not disclose dividing a multi-tier application into a plurality of tier-specific modules.

Additionally, Bocarsly does not anticipate or render obvious “testing each of said plurality of tier-specific modules as a black box” such as is set forth in Applicant’s Claim 1. As described herein, Applicant understands Bocarsly to disclose a combination of white and black box testing techniques. In contrast, Applicant’s claim 1 discloses the use of just black box testing techniques, as applied to a plurality of tier-specific modules.

Furthermore, Bocarsly does not anticipate or render obvious “observing an output of one of said plurality of tier-specific modules” such as is set forth in Applicant’s Claim 1. Bocarsly’s testing method involves a combination of white box and black box techniques, whereas Applicant’s recited invention tests modules as black box. Therefore, whatever output from Bocarsly that may be observed is substantially different than any output from Applicant’s invention that may be observed. Consequently, the embodiments of Applicant’s invention as are set forth in independent Claim 1 are neither anticipated nor rendered obvious by Bocarsly.

Therefore, Applicant respectfully submits that Bocarsly does not anticipate or render obvious the Applicant’s invention as is set forth in independent Claims 1 and 11, and as such, Claims 1 and 11 traverse the Examiner’s basis for rejection under 35 U.S.C. §102(b) and are in condition for allowance. Accordingly, Applicant also respectfully submits that Bocarsly does not anticipate or render obvious the present claimed invention as is recited in Claims 2-4 and 6-

10 dependent on Claim 1, and Claims 12-14 and 16-21 dependent on Claim 11, and that these Claims overcome the rejection under 35 U.S.C. §102(b) as being dependent on an allowable base claim.

35 U.S.C. §103(a) Rejection

The present Office Action rejected Claims 5 and 15 under 35 U.S.C. §103(a) as being unpatentable over “End-to-End Testing of IT Architecture and Applications” by Bocarsly. For the reasons already stated herein in regards to the 35 U.S.C. §103(a) rejection, independent Claims 1 and 11 overcome the 35 U.S.C. §102(b) rejection and is thus allowable. Applicant respectfully submits that the present invention as recited in Claims 5 and 15, dependent upon Claims 1 and 11 respectively, is allowable as being dependent on allowable base claims.

CONCLUSION

In light of the above-listed remarks and amendments, the Applicant respectfully request allowance of the Claims 1-21.

The Examiner is urged to contact Applicant's undersigned representative if the Examiner believes such action would expedite resolution of the present Application.

Respectfully submitted,

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